Analysis of the Economic Conditions Facing Low-Income MTA Riders, 2006-2010

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by Paul Ong and Silvia Jimenez

Bus Riders Union
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Contents

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Founded in 1994, the Bus Riders Union is a nationally recognized membership-based civil right and environmental justice organization based in Los Angeles. We have organized low-income Black, Latino, and Asian-Pacific Islander and white bus riders and a broad range of allies in Los Angeles to fight for a first-class environmentally sustainable bus-centered mass transit system. Our 10-year Civil Rights Consent Decree (1996-2006) the result of our class action civil rights lawsuit, resulted in the mass expansion of bus service and the bus fleet, the transition of the fleet from diesel to clean-fuel buses, low fares, and a total investment of $2.7 billion into the bus system. Today, the Bus Riders Union is fighting to protect the victories of our consent decree by challenging fare increases and cuts locally and campaigning nationally for more federal government funds dedicated to transit operations.

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INTRODUCTION

This paper examines the economic status of workers in Los Angeles County since the Metropolitan Transportation Authority (MTA) last analyzed the impact of fare raises in 2007. The central question addressed is how much the economic status of low-income transit riders has changed since the 2007 MTA report. The more dramatic the change in the status of low-income riders, the more likely that MTA's analysis is outdated and needs to be revised. It is reasonable to believe that the change in the status of low-income riders has been significant since the U.S. has gone through the longest and deepest recession in over a half-century. According to the National Bureau of Economic Research, the recession started in December 2007 and hit a trough in June 2009.[1] The recovery, however, has been painfully slow as economic growth has been anemic and employment continues to lag behind. In fact, the most recent seasonally adjusted unemployment rate from the U.S. Bureau of Labor Statistics is 9.6% for September 2010—a rate that shows little decline from its peak of 10.1% in October 2009.[2] Further, the rate for California is even higher than the national rate: 12.4% in September 2010.[3] Given the national and state context, it is not surprising that low-wage workers in Los Angeles County have also fared poorly over the last three to four years.

1 The National Bureau of Economic Research: http://www.nber.org/cycles/cyclesmain.html

2 The Bureau of Labor Statistics: http://data.bls.gov:8080/PDQ/servlet/SurveyOutputServlet;jsessionid=6230b511ba974e3d672b

3 CA Employment Development Department: http://www.edd.ca.gov/About_EDD/Quick_Statistics.htm#LaborMarketInformation

To address the question of how much the economic status of low-income transit riders has changed since 2007, this paper examines available data from the American Community Survey and the Current Population Survey, as well as from other sources. The paper is divided into four parts:

- Part one provides a profile of workers who use public transportation as their commute mode, and finds that a disproportionate share live in low-income households, are less likely to have access to a car, rent rather than own their homes, and belong to a minority group.

- Part two examines the overall economic conditions for Los Angeles County by measuring the jump in unemployment rates and decline in per capita income.

- Part three disaggregates the change in income in 2006 and 2009 for households with at least one worker and finds that the impact of the recession has been particularly severe on those in the bottom quartile—a problem compounded by the fact that rents have gone up, including the rents at the lower end of the housing market.

- The paper closes with a set of recommendations for a much needed reanalysis of the impacts of any proposed fare increase.

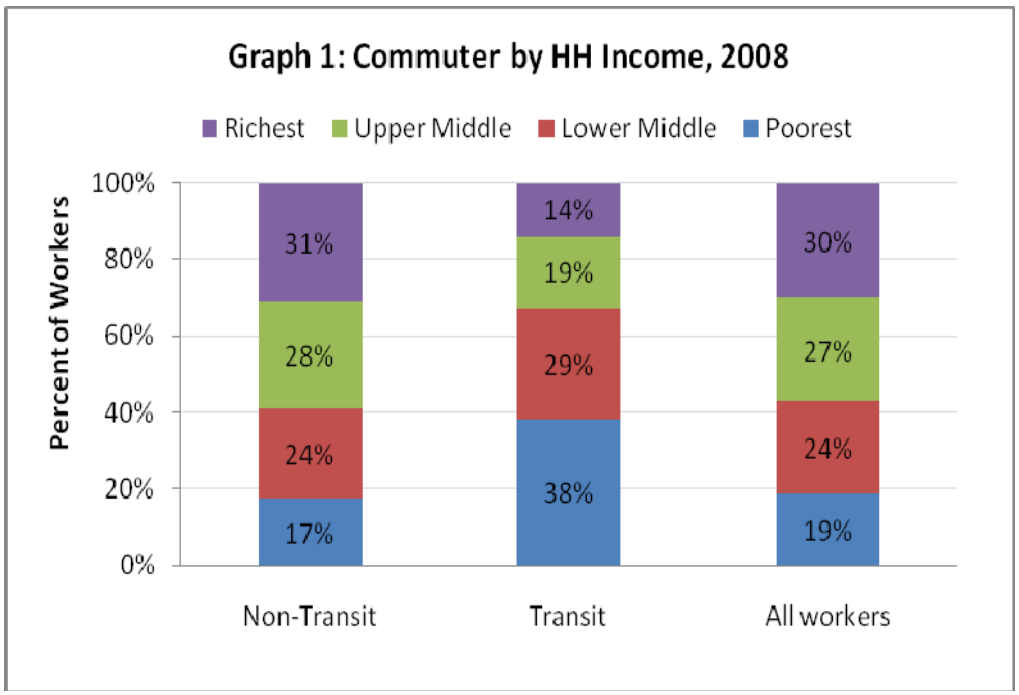
- The paper also includes an appendix that discusses the data sources, their comparability with other sources, and general limitations. The data variables and samples used for this paper are also provided.

PART 1: PROFILE OF PUBLIC TRANSPORTATION USERS

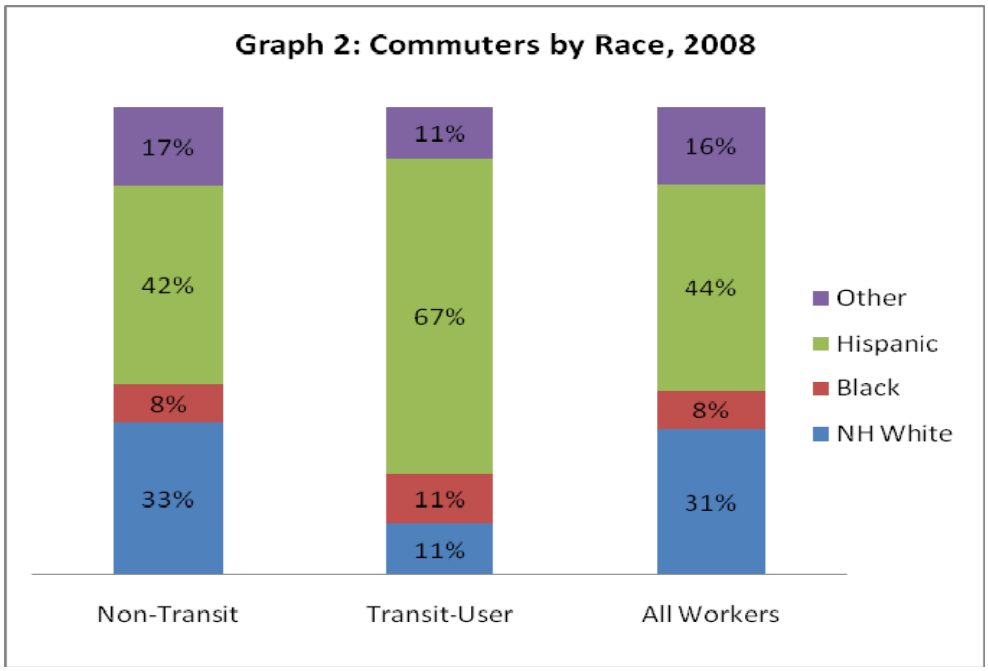
This section profiles workers who use public transit as their principal means of travel to work. The profile was developed using one-year micro-level data from the 2008 American Community Survey (ACS). The ACS is an ongoing nationwide survey conducted by the Bureau of the Census that pools a series of monthly samples to provide communities with a continuous stream of detailed and updated information on housing and socioeconomic characteristics of their population. The data used in this report are based on 2008 respondents. The sample used is restricted to the civilian employed population over the age of 16, excluding those under 25 enrolled in school at the time the survey. The sample was then placed into two categories based on the reported commute mode to work: those using public transportation and those not, that is, *'transit'* and *'non-transit'* commuters. An estimated 7% of workers in L.A. County use some form of public transit as their primary means of travel to work. The profile shows that a disproportionate share of transit commuters live in low-income households, are less likely to have access to a car, rent rather than own their homes, and are of a minority group.

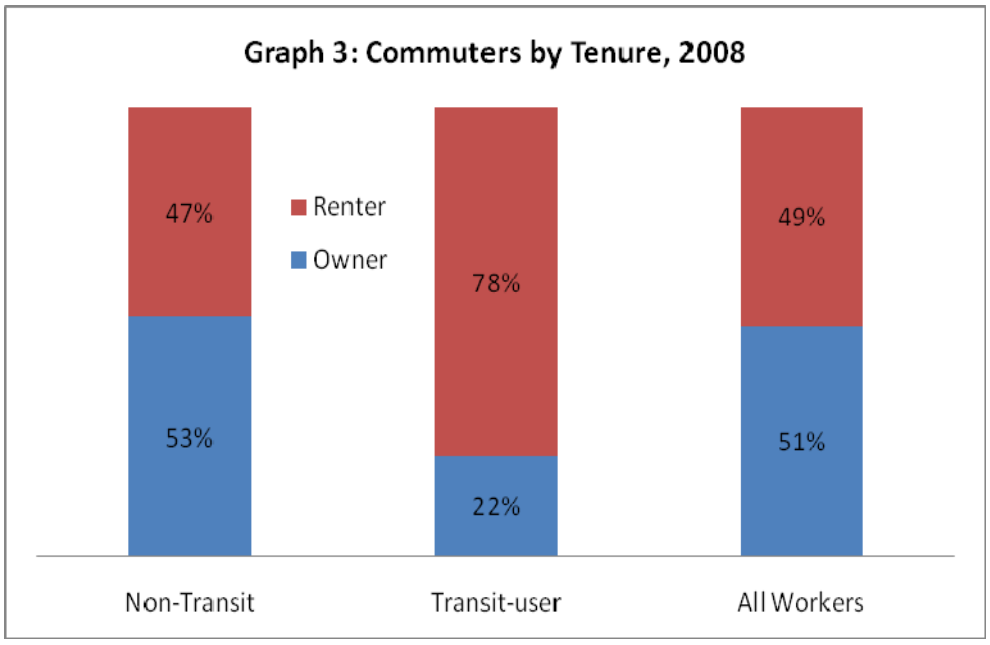
The economic status of workers is based on household income. For the analysis, households are restricted to those with at least one respondent in the worker sample, and these households are ranked and assigned to one of four income quartiles: (1) Poorest, (2) Lower Middle, (3) Upper Middle, and (4) Richest. The appendix further details the methodology used. The results are summarized in Graph 1. While approximately 1-in-5 workers in L.A. County live in the poorest of households, those

with an annual income of less than $36,000, workers from these households make up 38% of the transit commuters, that is, they are twice as likely to use public transportation than non-transit commuters. On the other hand, workers from more affluent households are far less likely to be a transit commuter.



Graph 2 summarizes the distribution by four races: (1) non-Hispanic White, (2) Black, (3) Hispanic, and (4) Other. Hispanic workers make up a very large majority of commuters using transit (67%), and Black workers are disproportionately over represented among transit users (11% versus only 8% of non-transit users). Non-Hispanic White workers, on the other hand, are disproportionately underrepresented.





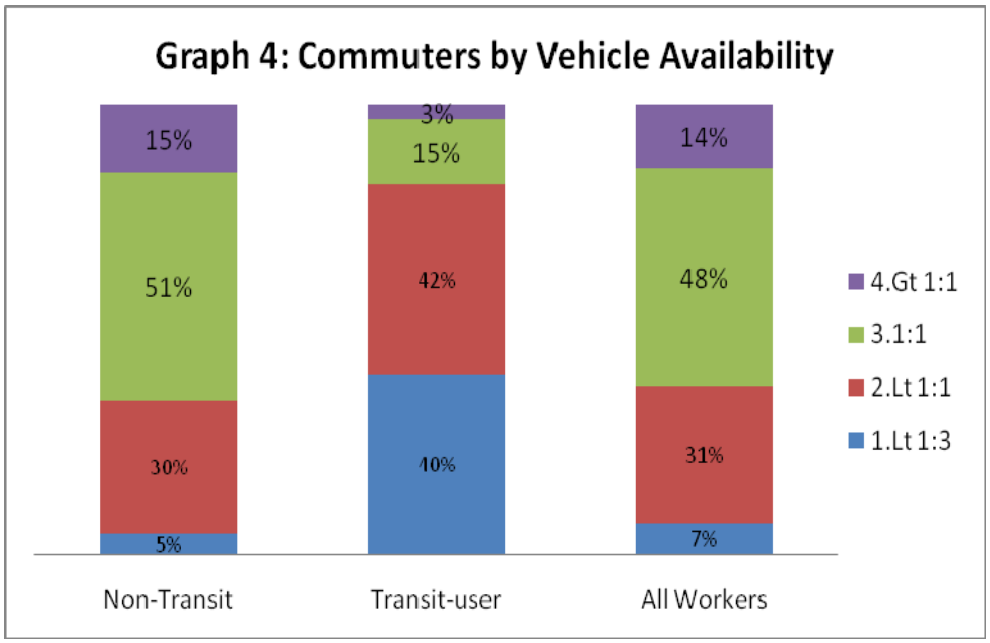
As shown in Graph 3, a large majority of transit users are renters (78%). This is not surprising since the majority of transit users have household incomes below the

median for the county. With a median home resale price of $400,000 in 20084, it is very difficult for the typical transit user to become a homeowner.

The final profile of transit users is based on relative access to a motorized vehicle within their households. Vehicular access is measured by the ratio of vehicles to adults, and four categories are used: (1) less than one vehicle per three adults; (2) less than one vehicle per adult; (3) one vehicle per adult; (4) more than one vehicle per adult. The first category also includes households with no vehicles, and the most common configuration for the second category is one vehicle in a household with two adults. Those in households with less than a 1:3 ratio of vehicles to adults can be considered to be transit-dependent workers (category 1).

Graph 4 shows that 42% of transit users live in households with less than one vehicle available per adult—a rate 12% higher than non-public transit users. Only 18% of transit-users live in households where each adult has access to at least 1 vehicle. The data also suggest that many transit commuters may be dependent on public transportation to commute to work—40% of transit-users have less than one vehicle available per three adults in their household, compared to only 5% of non-transit users.

4Median home resale prices as reported by DataQuick at: http://www.dqnews.com/Charts/Annual-Charts/CA-City-Charts/ZIPCAR09.aspx. (Accessed November 7th, 2010).


Graph 4: Commuters by Vehicle Availability
15%
51%
30%
5%
3%
15%
42%
40%
14%
48%
31%
7%
4.Gt 1:1
3.1:1
2.Lt 1:1
1.Lt 1:3
Non-Transit
Transit-user
All Workers

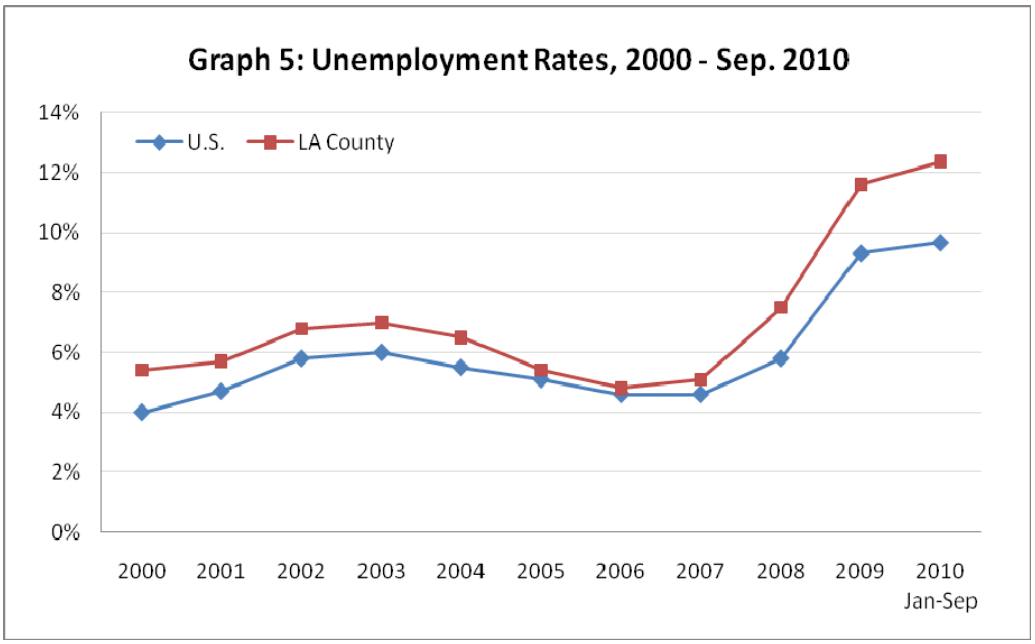
PART 2: COUNTY LEVEL ECONOMIC TRENDS

As stated in the introduction, employment status varies with the business cycle. During a recession, the economy contracts, unemployment rises, and income falls. The opposite dynamics occur during an economic recovery. Recessions and recoveries can differ in intensity and duration. Unfortunately, the most recent recession was extremely severe for California due to the severity of the housing crisis in the state.[5] In turn, the labor market in L.A. County was hit harder by the economic downturn compared to the labor marker of the nation as whole.

To examine the impact of the most recent recession on the labor market and workers, we examine unemployment data from the California Employment Development Department (EDD) for Los Angeles and data from the Bureau of Labor Statistics (BLS) for the nation. The unemployment rate (the number unemployed divided by the civilian labor force 16 years and over) is based on the Current Population Survey (CPS) conducted by the Bureau of the Census. A person is considered to be unemployed if she or he does not have a job but is actively seeking employment. This does not include discouraged individuals who have given up looking for employment because of poor job prospects. Further discussion on unemployment data sources can be found in the appendix.

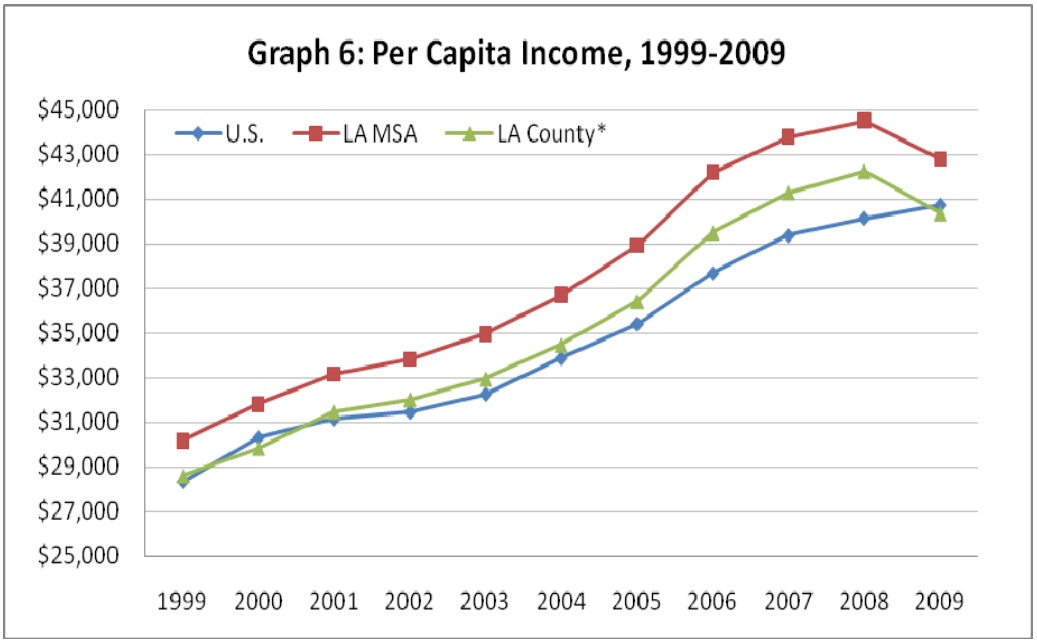
5California was one of the epicenters of the housing crisis; data from RAND California show that more than 568,000 single-family foreclosures were completed between the start of housing crisis in 2006 and end of September 2010, 14% of these were in LA County. Data can be accessed online at: http://ca.rand.org/stats/economics/foreclose.html. (Accessed November 10, 2010).

Graph 5 shows that over the last decade, unemployment rates have been higher in L.A. County than for the rest of the nation. In 2007, the unemployment rate was about half-percent higher in L.A. County than for the U.S. (5.1% compared to 4.6%). The difference between the two increased by 1.5% in 2008 and to 2.3% by 2009. While the recession officially ended in June 2009, the unemployment gap between the County and the nation has widened. The average unemployment rate between January and September 2010 is 2.7% higher for Los Angeles County than for the U.S. (12.4% compared to 9.7%, respectively).



The impact of the recession on L.A. County workers can also be seen in per capita income, which is reported in Graph 6. The data come from the Bureau of Economic Analysis (BEA), which reports all income from all sources for a given geographic area divided by the resident population (See the appendix for further discussion). The most recent statistic (2009) is only available for the LA-Orange metropolitan statistical area (L.A. MSA) but not for L.A. County. We estimate the 2009

per capita income for the County by taking the historical ratio of the County's income to that for the larger L.A. MSA. The data show that per capita income tends to be higher in Los Angeles County than in the U.S., and this is due to a number of factors, including the inclusion of some types of income generated locally but that leave the area, and the higher cost of living.[6] What is most critical to examine is the fluctuation of per capita income over time. In current dollars, per capita income in the L.A. MSA peaked in 2008 and then fell by 3.8% in the subsequent year (Graph 6). In inflation adjusted dollars, the peak occurred in 2007 and declined 5.5% by 2009 (not shown in Graph 6). Using 2006 as the base, real income fell by 4.6% by 2009 in the L.A. MSA. The decreases for L.A. County are of about the same magnitude.



6 According to the BEA, high per capita income is not necessarily indicative of economic well-being of the areas permanent residents as not all income may stay in the area. See examples on page 7 in the 2008 "Overview of Per capita personal income" in Local Area Personal Income Methodology. Online at: http://www.bea.gov/regional/pdf/lapi2008/lapi2008.pdf. (Accessed November 5th, 2010).

Note: 1. Data is for the Los Angeles-Long-Beach-Glendale Metropolitan Division, which covers the same geographical areas as Los Angeles County. 2. Dollars not adjusted for inflation. 3. Includes income received from all sources.

While the economy is currently growing, growth is very anemic, far too weak to lower unemployment significantly. The outlook is also gloomy. According to the most recent UCLA Anderson Forecast (third quarter of 2010), growth will be "very sluggish" for the foreseeable future at the national level, and California is facing "a difficult period ahead as it attempts to generate not only the 1.3 million jobs lost during the recession, but also the additional jobs needed for new entrants into the job market over the past two and a half years."[7] In other words, unemployment will remain high and personal income will not fully recover very soon.

7 UCLA Anderson Forecast, 2010. Online at: http://www.uclaforecast.com/contents/archive/2010/media_91510_1.asp. (Accessed November 7th 2010).

PART 3: DISAGGREGATED CHANGES IN WORKING HOUSEHOLD INCOME

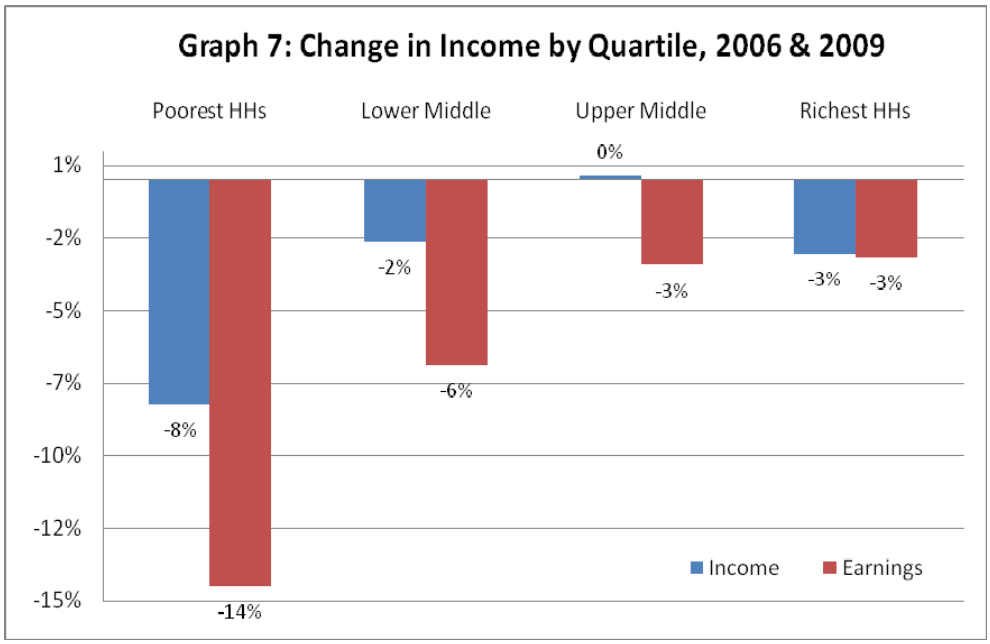
The impact of a recession is not evenly distributed across populations. Usually, low-wage, low-skilled and minority workers are more adversely affected, suffering higher unemployment and larger losses in income. These types of workers are the ones most likely to use public transit, so it is critical to disaggregate the economic effects of the recent recession. This section examines the change in income between 2006 and 2009 for four classes of households with earnings ranked by income. The analysis shows that the impact of the recession has been particularly severe on L.A. County households at the bottom quartile.

The analysis uses micro-level household data from the 2007 and 2010 Current Population Survey (CPS) Annual Social and Economic Supplement (ASEC), also known as the March Supplement. The 2010 CPS provides the most current information on income, thus is preferable to the 2009 ACS.[8] Income data for the ASEC is collected over a three-month period (February, March, and April) and covers the *previous calendar year.* The sample used in the analysis is restricted to households with some reported earned income, and then are ranked and assigned to one of four income quartiles: (1) Poorest, (2) Lower Middle, (3) Upper Middle, and (4) Richest. The analysis estimates and compares average (mean) household income and earnings for the four categories. The analysis uses current dollars (not adjusted for inflation). The results are reported in Table 1.

8 Research suggests that 2009 ACS income data, which covers 2008/2009 income, will not capture the full impact of the recession. See appendix for further discussion.

Table 1: 2006 & 2009 HH Income					
	2006	2009	Decline	Significance	% Decline
Poorest HHs					
Income	$ 21,784	$ 20,104	$ 1,680	p=.0037	7.7%
Earnings	$ 19,303	$ 16,602	$ 2,701	p<.0001	14.0%
Lower Middle					
Income	$ 47,401	$ 46,394	$ 1,006	p=.0642	2.1%
Earnings	$ 44,065	$ 41,261	$ 2,804	p=.0003	6.4%
Upper Middle					
Income	$ 77,569	$ 77,667	$ (97)	p=.9143	-0.1%
Earnings	$ 70,884	$ 68,811	$ 2,073	p=.1242	2.9%
Richest HHs					
Income	$ 186,792	$ 182,041	$ 4,751	p=.5735	2.5%
Earnings	$ 169,713	$ 165,186	$ 4,527	p=.5924	2.7%

With the exception of total income for the upper-middle category, the results show a noticeable decline in income and earnings for all groups; however, only the estimated declines for the two bottom quartiles are statistically significant. Graph 7 reports the percentage change in income, which graphically shows that the poorest households in L.A. County have been hardest hit by the recession. The poorest households have experienced a drop of almost 8% in income and 14% in earnings. Adding in inflation, the respective losses are 13% and 20%. Households in the Lower-Middle category also experienced a decline in income and earnings that are statically significant, although not as large in percentage terms. It is likely that households in the two top income categories suffered a setback, but the CPS data are insufficient to estimate the losses.



In addition to the decline in income, low-income households have been hurt by increasing cost. According to data from the BLS, the overall inflation rate between 2006 and 2009 is 6.1% for the Los Angeles-Riverside-Orange region, that is, it took on the average $106.10 in 2009 to purchase the same basket of goods that $100 bought in 2006.[9] For renters, the cost of housing increased twice as fast, by 12.8%. In L.A. County, the situation was worse according to ACS statistics, which indicate that median contract rent increased by 16% from $905 to $1,049 during the same period.[10] This increase affected all segments of the rental market. Contract rent at the 75th percentile increased by 17% from $1,209 to $1,419, and by 15% from $701 to $796 at the 25th

9 Calculated from U.S. Bureau of Labor Statistics data on Consumer Price Index for All Urban Consumers, Table 16A, "2006 Consumer Price Index Detailed Report Tables, Annual average indexes, 2009," and "2009 Consumer Price Index Detailed Report Tables, Annual average indexes, 2009," http://www.bls.gov/cpi/cpi_dr.htm#2006, accessed November 9, 2010.

10 Rent quartiles were obtained from the 2006 and 2009 ACS tables B25057, B25058, B25059. Household income by gross rent as a percent of household income in the past 12-months was obtained from 2006 and 2009 ACS table B25074.

percentile. Given that transit commuters are disproportionately from low-income households that rent their homes (as documented in Section 1), the combination of falling earnings and higher cost of housing leave far fewer dollars to cover transportation costs.

CONCLUSION

Based on the available evidence and above analysis, we believe that the 2007 analysis by the MTA on the impact of a transit fare increase should be redone. The economic conditions facing low-income transit workers, who make up a disproportionate large share of MTA's riders, have seriously deteriorated over the last three to four years. Average household income has declined significantly, while the cost of living has increased, particularly housing rents. This means that any increase in fares is far less affordable to low-income transit workers. Given the slow economic recovery, the problem is likely to persist for some time.

We have two recommendations about how a new analysis of a proposed fare's impact should be conducted:

- First, more precise data and information on transit users should be developed. This includes the use of the 2010 ACS PUMS when it becomes available. Caution should be exercised if the 2009 ACS is used, as there is evidence that the data does not catch the full impact of the recession. While ACS is preferred for sub-national analysis, CPS is of higher quality and future analysis should be complimented by the CPS. More recent transit user surveys are also needed. The latter should be adjusted for inherent biases and limitations associated with the method used to collect the data.

- Second, the analysis of burden should consider impacts relative to available income. While a given rise in transit fares may be the same in absolute dollar

terms for low-income and high-income riders, the burden relative to income is dramatically different.

Finally, to ensure that the analysis by the MTA is impartial, it is critical that the process be transparent and that third-party researchers are consulted

APPENDIX

SECTION 1: PROFILE OF PUBLIC TRANSPORTATION USERS

2008 ACS PUMS Records						
	SAMPLE SIZE			WEIGHTED POPULATION		
	NON-USER	TRANSIT-USER	TOTAL	NON-USER	TRANSIT-USER	TOTAL
WORKERS SAMPLED	37,083	2,431	39,514	4,047,020	301,092	4,348,112
RACE						
NH White	13,466	341	13,807	1,328,360	33,307	1,361,667
Black	2,564	244	2,808	316,584	32,343	348,927
Hispanic	14,184	1,525	15,709	1,719,434	202,325	1,921,759
Other	6,869	321	7,190	682,642	33,117	715,759
TENURE						
Owner	21,642	642	22,284	2,161,190	66,759	2,227,949
Renter	15441	1789	17,230	1,885,830	234,333	2,120,163
HH INCOME						
Q1. Poorest	5982	918	6900	706,381	115,321	821,702
Q2	8352	659	9011	958,895	87,607	1,046,502
Q3	10170	487	10657	1,113,181	56,387	1,169,568
Q4. Highest	12579	367	12946	1,268,563	41,777	1,310,340
VEHICLES:ADULTS						
LT 1:3	2440	1117	3557	183,638	119,921	303,559
LT 1:1	11601	1898	13499	1,199,621	127,821	1,327,442
1:1	19488	433	19921	2,059,899	44,140	2,104,039
GT 1:1	5994	100	6094	603,862	9,210	613,072

Source: 2008 American Community Survey (ACS) Public-use Microdata (PUMS).

The ACS is a nationwide survey conducted by the Census Bureau. As a period estimate, the ACS pools monthly survey answers sent to about 3 million addresses across the United States and Puerto Rico every year to provide detailed annual population characteristics. Prior to 2010, detailed data were obtained every 10 years from 1-in-6 sample of households, who completed the decennial census long-form questionnaire. In exchange for the benefit of a continuous stream of up-to-date information, the sample size of the ACS is much smaller than that of the decennial census.

The survey is sent to both housing units and group quarters. The ACS provides three period estimates (1-year, 3-year and 5-year) in two formats (micro and summary data). Period estimates are determined by the population size of an area: 1-year estimate for geographies with a population over 65,000; 3-year estimates for areas with a population over 20,000; and 5-year estimates for all areas. Each ACS period estimate has drawbacks and the set chosen for analysis varies with the questions and geographies being explored. The 1-year period estimates used in this paper have a 12-month reference period, that is, the data are collected throughout the calendar year and cover the previous 12 months. Distinguishing features between the 1-year, 3-yeard and 5-year estimates can be found on the Census ACS website at: http://www.census.gov/acs/www/guidance_for_data_users/estimates/

The three ACS period estimates are available in two different data formats: summary data and public use microdata sample (PUMS) data. PUMS data, as opposed to summary data, contain the individual responses for a subsample of the ACS housing units, the people in the selected housing units, and the group quarters persons

surveyed. Using microdata allow for custom sample universes and detailed relationships among variables to be drawn, and that may not be shown in standard summary data. More information on the difference between summary and microdata can be found in the appropriate ACS Handbook at: http://www.census.gov/acs/www/guidance_for_data_users/handbooks/

A list of the subjects covered in the ACS PUMS dataset can be found on the Census ACS website at: http://www.census.gov/acs/www/data_documentation/pums_documentation/

The following outlines the procedures used in SAS, included are the data item name in single quotations (‘ ’), the mnemonic in parenthesis, and the numeric category value recoded (used, deleted or combined), as defined by the 2008 ACS PUMS Data Dictionary:

- **WORKERS SAMPLE:** ‘Workers’ include those records with an ‘employment status recode’ (ESR) equal to civilian employed, at work (1) and with a job but not at work (2). Excluded are workers under the age of 25 (AGEP) if they attended a public (2) or private (3) school or college (SCH) in the last 3 months at the time of the survey.
- **COMMUTE MODE:** ‘Transit-users’ includes records from the data item ‘transportation to work’ (JWTR) in the following categories: ‘bus or trolley bus’ (02); ‘street car or trolley car’ (03); ‘subway or elevated’ (04); and ‘railroad’ (05). ‘Non-users’ includes workers in all other JWTR categories: ‘car, truck or van’ (1); ‘ferryboat’ (06); ‘taxicab’ (07); ‘motorcycle’ (08); ‘bicycle’ (09); ‘walked’ (10); ‘worked

at home' (11); 'other method' (12). Following is the resulting sample size of the worker categories:

- **WORKERS BY RACE:** 1.NH WHITES includes those in 'race1 recode' category 'white alone' (1) and the latter who fell in the data item 'recoded detailed Hispanic origin' (HISP) the category 'Not Spanish/Hispanic/Latino' (01); 2. BLACK: include those in 'race1 recode' category 'Black or African American Alone' (2). No other exclusions were made. Category 3. HISPANIC, includes those in the data item 'HISP' in a category other than 'Not Spanish/Hispanic/Latino '(01). And 4. OTHER, include all other categories not part of categories 1-3.

- **HOUSEHOLD INCOME QUARTILES:** Determined using univariate distribution of household income (HINCP), weighed by household weight file (WGTP). Estimates and compares average (mean) household income and earnings for the four categories. There are no duplicate households, households can have more than one worker, and must have reported income.

- **VEHICLES TO ADULTS:** Ratio of VEH/ADULTS, where adults equal to persons in a household minus related children (ADULTS=NP–NRC), and then placed into four categories: 1. 1<1; 2. <1:1; 3. 1:1; and 4. >1:1.

SECTION 2: COUNTY LEVEL ECONOMIC TRENDS

UNEMPLOYMENT RATES

Unadjusted Unemployment Rates		
	U.S.	LA County
2000	4%	5.4%
2001	4.7%	5.7%
2002	5.8%	6.8%
2003	6%	7%
2004	5.5%	6.5%
2005	5.1%	5.4%
2006	4.6%	4.8%
2007	4.6%	5.1%
2008	5.8%	7.5%
2009	9.3%	11.6%
2010 Jan-Sep	9.7%	12.4%

Sources: California EDD and U.S. Bureau of Labor Statistics

Unadjusted unemployment rates for California were obtained directly from the California Employment Development Department (EDD) thorough the Labor Force Data Search Tool, accessible at: http://www.labormarketinfo.edd.ca.gov/?pageid=1006.

The unemployment rate by the EDD is for the civilian population only. The EDD defines the unemployment rate as “the number unemployed divided by the labor force” and is derived from labor force data based on the place of residence of a worker, “where people live, regardless of where they work.” The EDD uses various sources to calculate unemployment statistics, including Unemployment Insurance Claims and data from the Current Population Survey (CPS). Workers who have more than one job are counted only once. The following is the definition for unemployment from the glossary on EDD’s website:

> "Comprises all civilians 16 years and over who did not work during the survey week, who made specific efforts to find a job within the past four weeks, and who were available for work (except for temporary illness) during the survey week. Also included as unemployed are those who did not work at all, but were available for work, and (a) were waiting to be recalled to a job from which they had been laid off for a specific time; or (b) had a new job to go to within thirty days.
>
> The count of those who are drawing unemployment is only a small factor into calculating unemployment statistics. These statistics (labor force data) are mainly produced using the results of a monthly household survey called the Current Population Survey (CPS) which is conducted by the Bureau of the Census. Some of the questions asked of the household respondents are whether they are currently employed, and if not, are they able to work, available for work, and are they seeking full-time or part-time work. If the latter is true, they are counted as "unemployed" and are part of the labor force. If they are not working and not seeking work, they are not part of the labor force. Most high school and college students are not part of the labor force because they are not working or looking for work. Once they graduate and begin looking for work, they are counted as part of the labor force (as new entrants) and are factored into the unemployment rate calculations". [11]

National unemployment rates were obtained directly from the Bureau of Labor Statistics (BLS). The BLS compiles statistics on employment status using the Current Population Survey and therefore rates are comparable with California rates. However, according to the BLS, the national unemployment rates they produce are not strictly comparable across all years due to changes that have been introduced in the CPS surveys. Changes for the years analyzed in this paper consist of: (1) in 2003, (a) population controls were included to reflect the results of the 2000 Census, (b) modifications on race an Hispanic heritage, and (c) introduction of improved second-stage and composite weighting procedures; (2) in 2004, population controls were updated to reflect revised estimates of net international migration for the years 2000-2003; and (3) in 2005, population controls were again updated to reflect revised

11 CA EDD, 2010. "Glossary. " Online at: http://www.labormarketinfo.edd.ca.gov/?pageid=1025#U

estimates of net international migration and updated vital statistics. A full explanation can be found under "Historical Comparability" under the Household Data section of the *Explanatory Notes and Estimates of Error* at www.bls.gov/cps/eetech_methods.pdf.

PER CAPITA INCOME

Per Capita Income			
	U.S.	LA MSA	LA County*
1999	28,333	30,172	28,607
2000	30,318	31,815	29,865
2001	31,145	33,187	31,495
2002	31,462	33,824	32,041
2003	32,271	34,968	32,961
2004	33,881	36,705	34,481
2005	35,424	38,915	36,434
2006	37,698	42,185	39,519
2007	39,392	43,801	41,307
2008	40,166	44,519	42,265
2009	40,757	42,818	40,380

Sources: Bureau of Economic Analysis

Data on per capita income are from the Bureau of Economic Analysis (BEA) through the Regional Economic Information System, which can be accessed at: http://www.bea.gov/regional/quick.cfm. The 2009 data for Los Angeles County was derived using the historical ratio of County's income to that for the larger LA MSA. Per capita income is defined by BEA as the total personal income of the residents of a given area divided by the resident population of the area, and therefore, estimates are by place of residence of income recipients

The BEA uses the Census Bureau's annual midyear population estimates to derive the per capita income estimates. The BEA defines personal income as the income received from all sources less contributions for government social insurance:

> "Personal income is the income that is received by persons from all sources. It is calculated as the sum of wage and salary disbursements, supplements to wages and salaries, proprietors' income with inventory valuation and capital consumption adjustments, rental income of persons with capital consumption adjustment, personal dividend income, personal interest income, and personal current transfer receipts, less contributions for government social insurance."

The complete methodology used by the BEA to calculate per capita income can be found in the most recent *Local Area Personal Income and Employment Methodology* (2008), which can be accessed at:

http://www.bea.gov/regional/pdf/lapi2008/lapi2008.pdf

PART 3: DISAGGREGATED CHANGES IN WORKING HOUSEHOLD INCOME

The Current Population Survey (CPS) is a monthly survey of some 50,000 households conducted by the Bureau of the Census for the BLS. The CPS is the primary source of information on the labor force characteristics of the U.S. population, such as employment, unemployment, earnings and basic demographics. The Annual Social and Economic Supplement (ASEC), also known as the March Supplement, contains the basic monthly survey data from the CPS and additional data on work experience, income, noncash benefits, and migration collected over a three-month

period (February, March and April). ASEC income data are collected by trained surveyors using a series of questions on more than 50 sources of income and up to 27 individual income values. The detailed data produced are used as part of model-based estimates by state and other entities.

- **HOUSEHOLD INCOME QUARTILES:** Determined using univariate distribution of household income (HTOTAL). Only households with reported income were included. The quartiles estimate the average (mean) household income and earnings for the four categories.

- Household sample size for 2007: 1,503
  - Q1: 392, Q2: 398, Q3: 363, Q4:350
- Household sample size for 2010: 1,610
  - Q1: 422, Q2: 426, Q3: 388, Q4: 374

DIFFERENCES BETWEEN THE CPS ASEC AND ACS

There are two sources of micro-level data on household income for Los Angeles County, the American Community Survey (ACS) and the March Supplement of the Current Population Survey (CPS). The ACS is better for many purposes because it has a much larger sample size than the ACS; nonetheless, this report uses the CPS for several other reasons as well. One, is it because of the detailed questions asked of participants, the data provide the most information on income. The most recently available CPS (March 2010) has information on household income for 2009, while the most recently available ACS (2009) provides information for the 2008-09 time period and thus does not capture the full impact of the recession. Two, there is a difference in

the quality of the income data. In comparing the two sources, the Census states that "because of its detailed questionnaire and its experienced interviewing staff, the Current Population Survey (CPS) Annual Social and Economic Supplement (ASEC) is a high quality source of (economic) information."[12] However, because the ACS is a newer survey that has been revising its procedures and data collection instrument, comparability of data across multiple years is difficult. For example, in 2008 the ACS revised its question on employment status because of discrepancies with the CPS, which is considered to be the accepted standard for measuring employment status. Unfortunately, the change in 2008 has made data for that and subsequent years not compatible with prior years.[13] While there seems to be less of an issue on income there may be changes to other variables that need to be corrected before the ACS can be used to examine changes over the business cycle.[14]

12 U.S. Bureau of the Census, 2010. "Fact Sheet: Differences between the Income and Poverty Estimates from The American Community Survey and The Annual Social Economic Supplement to the Current Population Survey - August 26, 2008." Online at: http://www.census.gov/hhes/www/income/method/guidance/factsheet.html, retrieved November 5, 2010.

13 U.S. Bureau of the Census, "Changes to the American Community Survey between 2007 and 2008 and the Effect on the Estimates of Employment and Unemployment." Online at: http://www.census.gov/hhes/www/laborfor/researchnote092209.html (Accessed November 5, 2010)

14 See Bruce H. Webster Jr., 2007. "Evaluation of Median Income and Earnings Estimates: A Comparison of the American Community Survey and the Current Population Survey." U.S. Bureau of the Census. Online at: http://www.census.gov/acs/www/Downloads/library/2007/Evaluation_of_Income_Estimates31207.pdf